

WHAT IS CLAIMED IS:

1. A plastic object having a structurally modified part whose structure has been modified by irradiation with a laser light having a pulse duration of  $10^{-12}$  second or shorter.

2. The plastic object of claim 1, wherein the laser light having a pulse duration of  $10^{-12}$  second or shorter has an irradiation energy of 500 mW or lower.

3. The plastic object of claim 1, which has the structurally modified part in an inner portion thereof.

4. The plastic object of claim 1, wherein the structurally modified part extends in a direction parallel or perpendicular to the direction of the laser light irradiation.

5. The plastic object of claim 4, wherein the structurally modified part has a nearly circular or nearly rectangular section perpendicular to the longitudinal direction for the structurally modified part.

6. The plastic object of claim 1, wherein the structural modification in the structurally modified part is a structural modification caused by a crosslinking reaction, phase separation or a decomposition reaction.